

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 16661 - L2 Version 2  
Chandra X-Ray Center

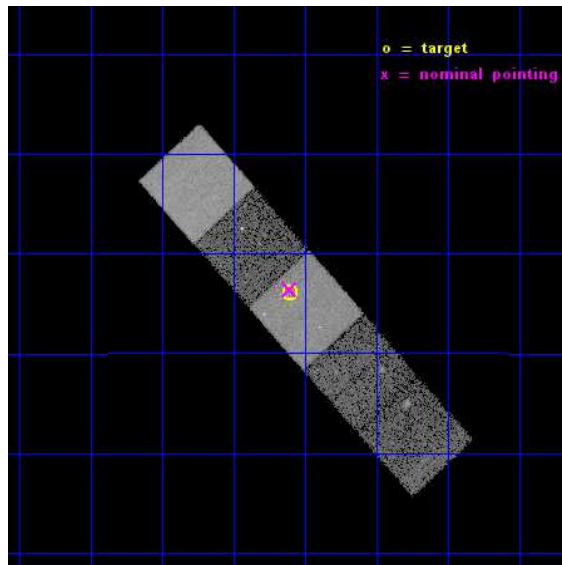
L2 Processing Date : Feb 13 2015

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# 1 Front

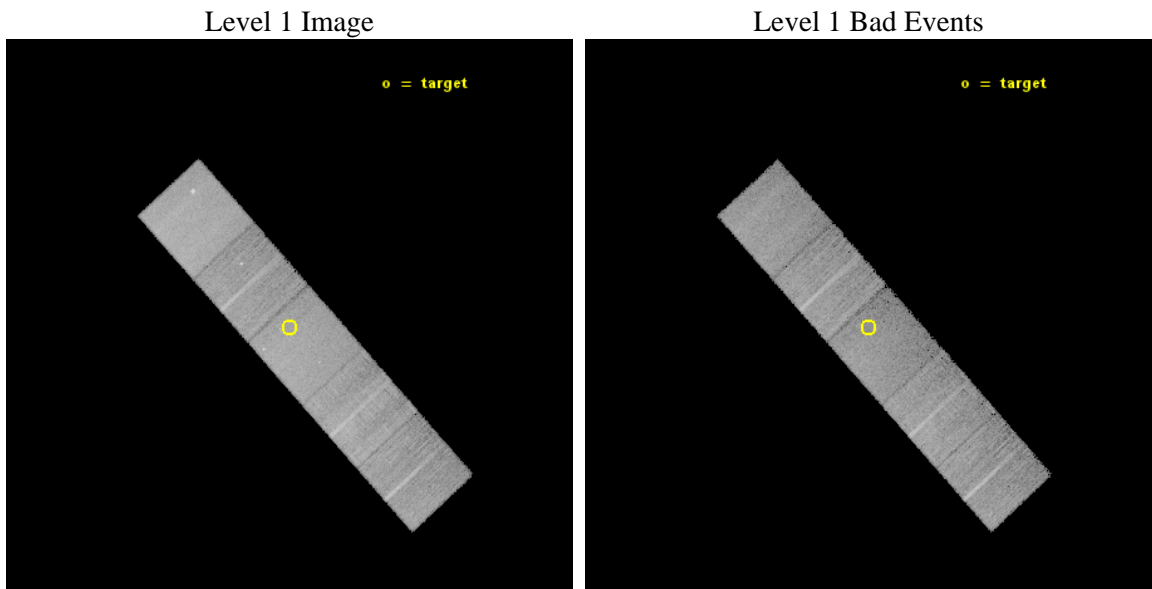
seq_num	200982	Sequence number
obs_id	16661	Observation id
title	An age-activity calibration for old low-mass stars	Proposal title
observer	Dr Katja Poppenhaeger	Principal investigator
object	GJ 1142 A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	167.027013	Observer's specified target RA [deg]
dec_targ	-5.231703	Observer's specified target Dec [deg]
ra_nom	167.02728298084	Nominal RA [deg]
dec_nom	-5.2262723115132	Nominal Dec [deg]
roll_nom	47.869430642041	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15025.107417822	Sum of GTIs [s]
livetime	14828.793328085	Livetime [s]
ontime5	15025.066377878	Sum of GTIs [s]
ontime6	15025.025337815	Sum of GTIs [s]
ontime7	15025.107417822	Sum of GTIs [s]
ontime8	15024.984297872	Sum of GTIs [s]
ontime9	15024.943257809	Sum of GTIs [s]
l2events	129916	Number of level 2 events



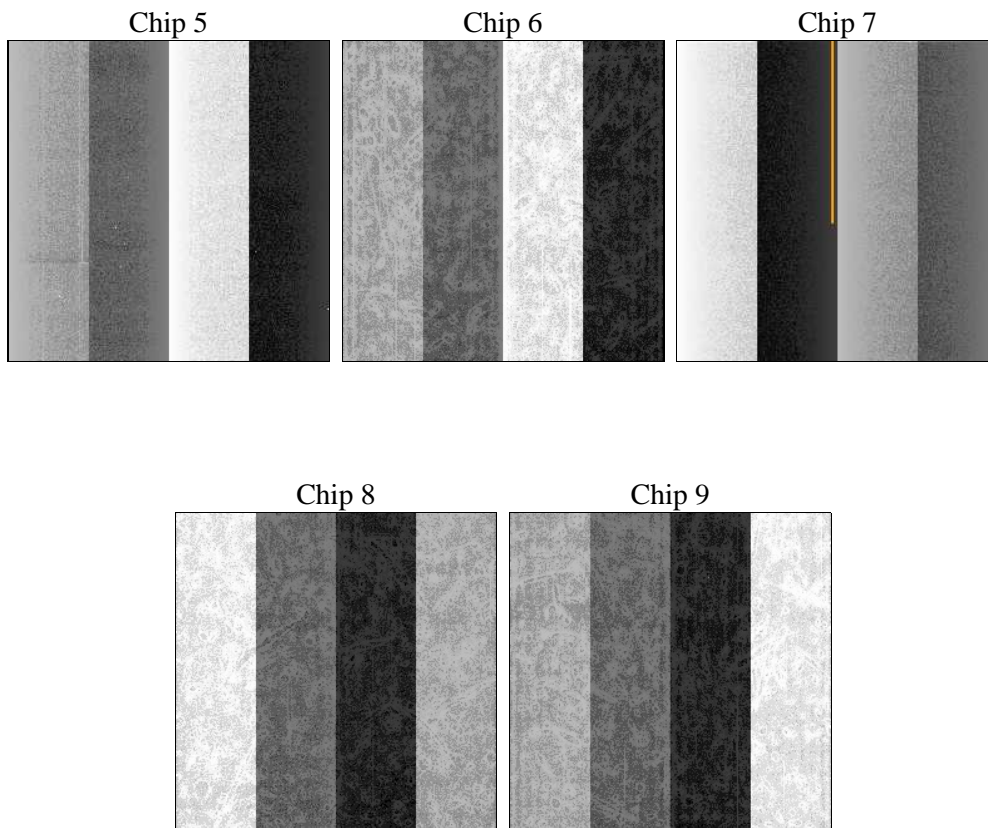
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	15025.107417822	Sum of GTIs [s]
caldbver	4.6.6	&#160	ontime5	15025.066377878	Sum of GTIs [s]
date	2015-02-13T23:24:51	Date and time of file creation	ontime6	15025.025337815	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	15025.107417822	Sum of GTIs [s]
			ontime8	15024.984297872	Sum of GTIs [s]
			ontime9	15024.943257809	Sum of GTIs [s]
			l1events	512247	Number of level 1 events

### 2.1.4 Events

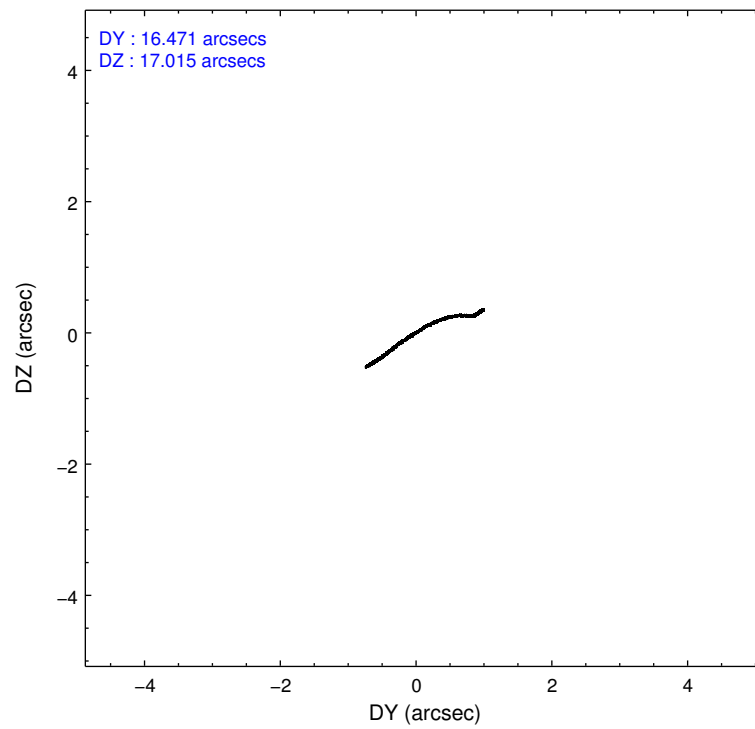
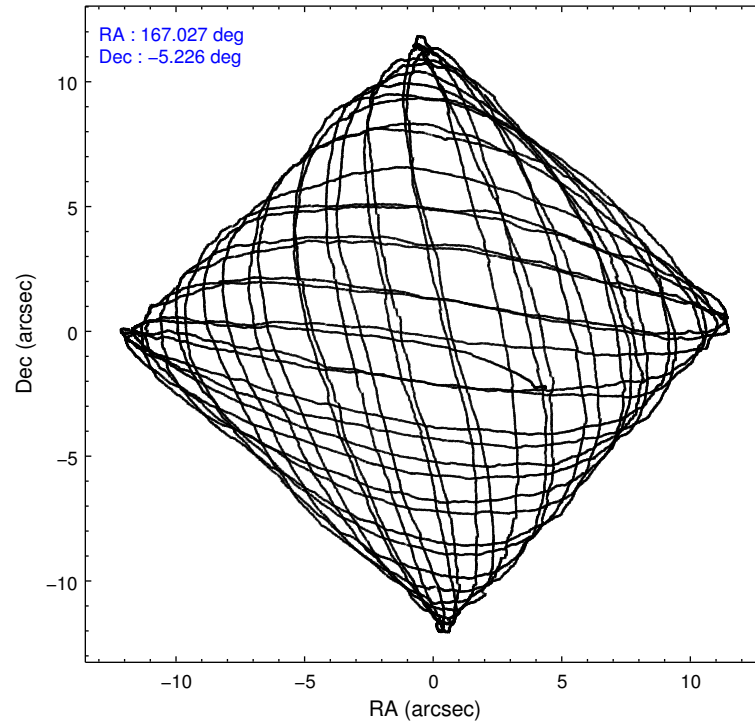
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	128783	87144	108270	105940	82110
rejected events	68473	77149	62080	80218	72117
rejected %	53%	88%	57%	75%	87%

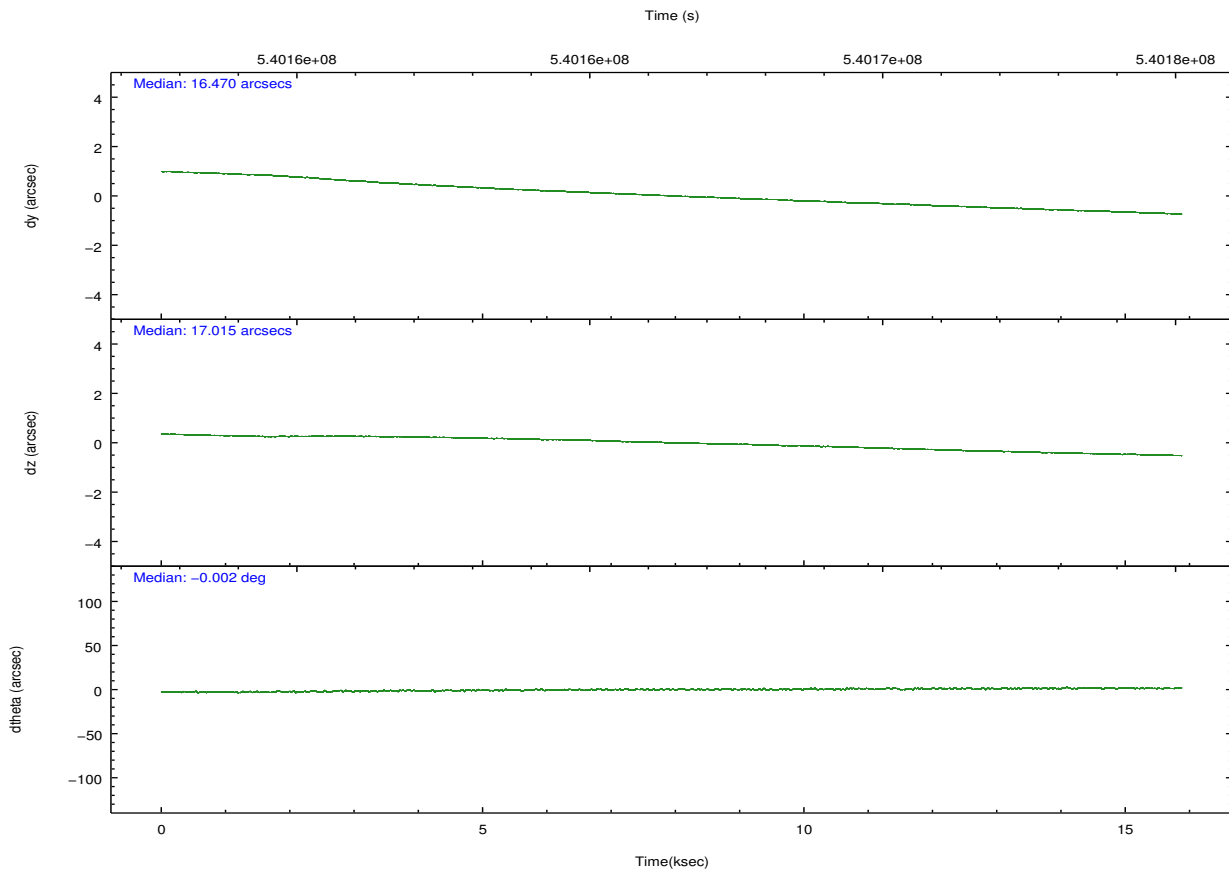
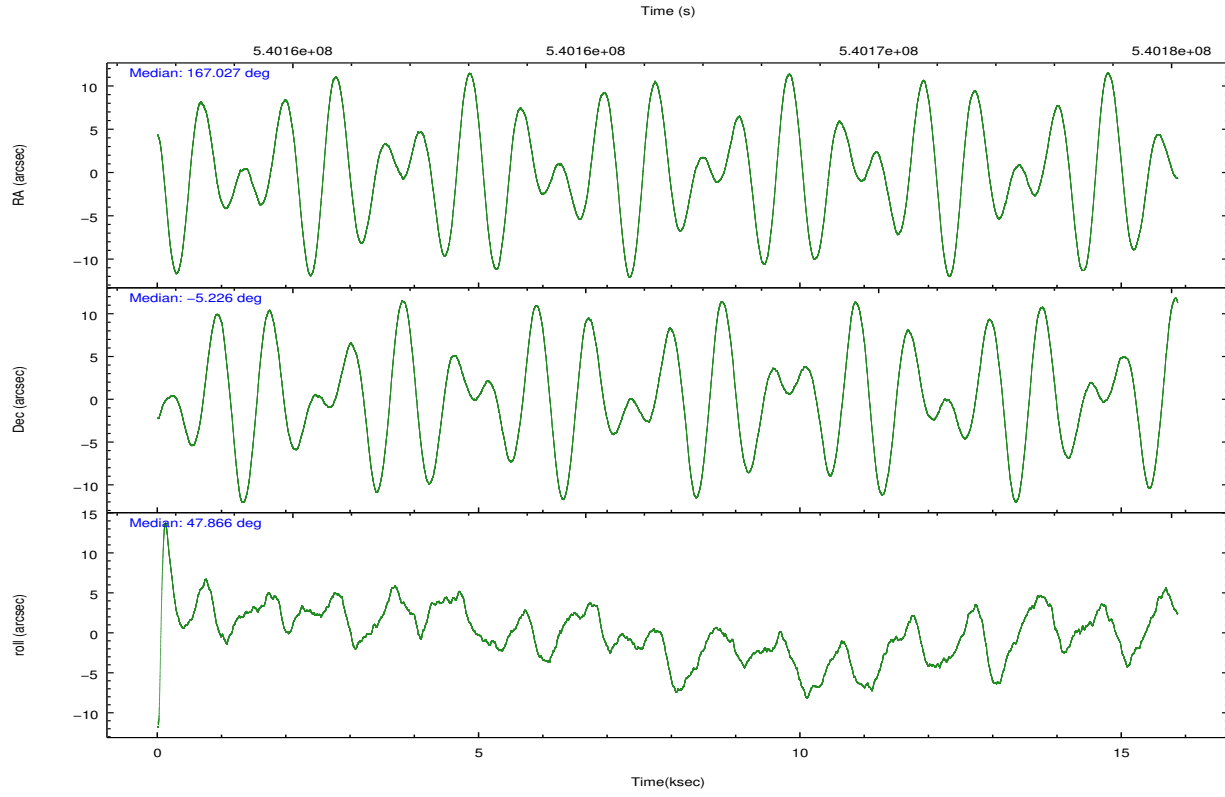
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3859	3476	3806	7240	3598
	2%	3%	3%	6%	4%
grade 1 events	291	44	124	76	47
	0%	0%	0%	0%	0%
grade 2 events	18326	2328	9634	6279	2105
	14%	2%	8%	5%	2%
grade 3 events	1895	873	3586	2771	1008
	1%	1%	3%	2%	1%
grade 4 events	1734	889	3483	2635	975
	1%	1%	3%	2%	1%
grade 5 events	8546	3829	10185	5698	4369
	6%	4%	9%	5%	5%
grade 6 events	34522	2436	25690	6815	2311
	26%	2%	23%	6%	2%
grade 7 events	59610	73269	51762	74426	67697
	46%	84%	47%	70%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	167.021872	167.0272829808407	CCD I2 on	N	N
[deg] Pointing Dec	-5.253188	-5.226272311513177	CCD I3 on	N	N
[deg] Pointing Roll	47.712306	47.86943064204053	CCD S0 on	O1	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O4	Y
[s] Observation start time (MET)	540159342.184000	540158047.84609	CCD S5 on	O2	Y
Observation start date	2015-02-12T20:14:35	2015-02-12T19:54:07	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	540174342.184000	540175324.73455	On-chip summing requested	N	N
Observation end date	2015-02-13T00:24:35	2015-02-13T00:42:04	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





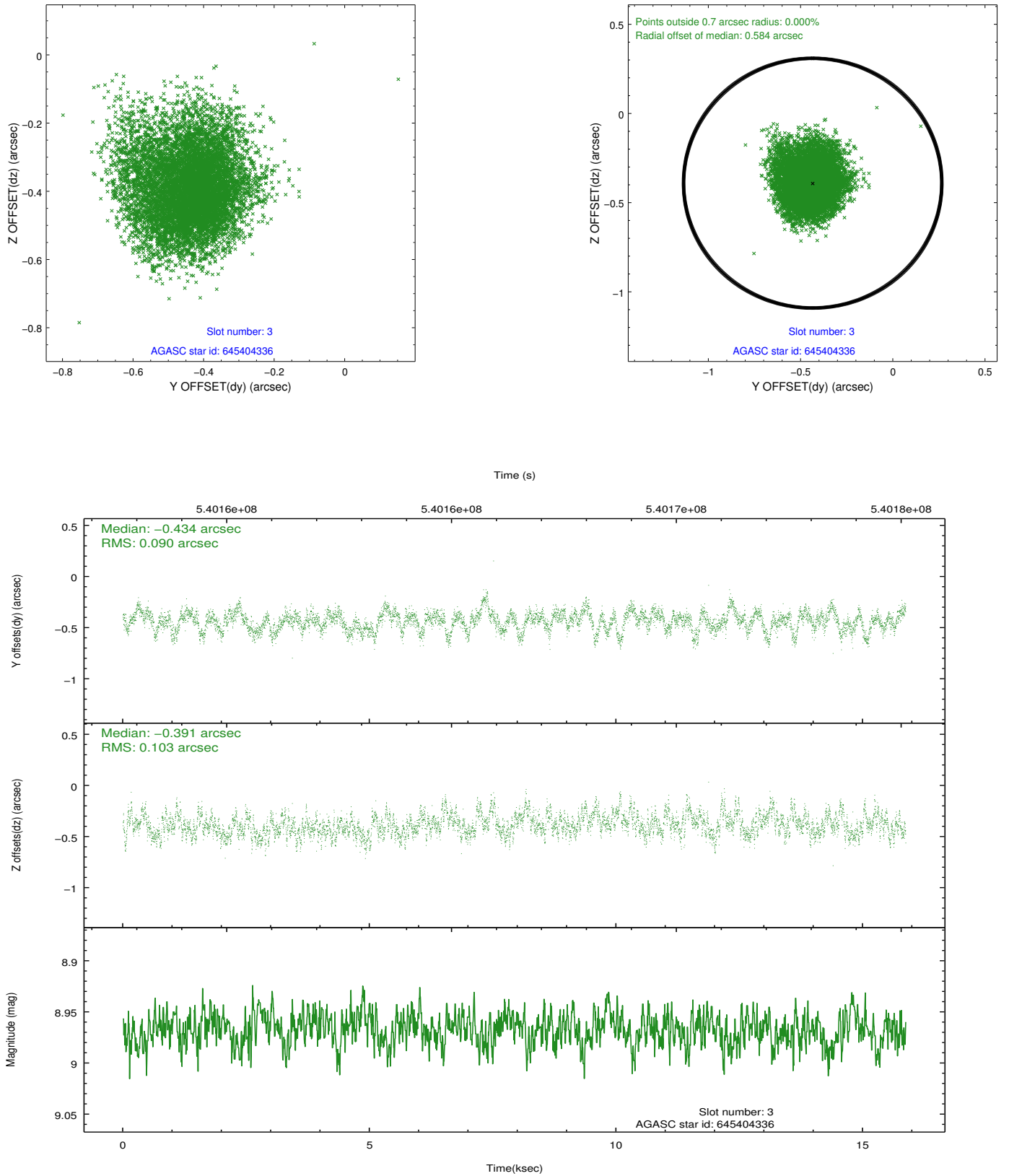
### Slot Statistics

lot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-1	7.22	3871	0.087	-0.030	0.024	0.032	0.000000	0.000000	926.49	-1734.11
1	FID		ACIS-S-2	7.13	3871	-0.235	-0.077	0.011	0.023	0.000000	0.000000	-769.58	-1738.97
2	FID		ACIS-S-4	7.21	3871	0.124	0.111	0.015	0.021	0.000000	0.000000	2143.74	169.84
3	GUIDE	used	645404336	8.97	7737	-0.434	-0.391	0.146	0.236	166.878143	-4.648072	1264.11	1847.05
4	GUIDE	used	645793424	10.36	7665	-0.042	0.802	0.274	0.466	167.489888	-5.605287	190.55	-2092.65
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	645924936	8.57	7740	0.358	0.228	0.164	0.265	167.786460	-5.321643	1661.26	-2194.37
7	BAD	used	645405904	10.32	7337	0.120	-0.653	0.214	0.362	167.300997	-4.606986	2390.61	826.57

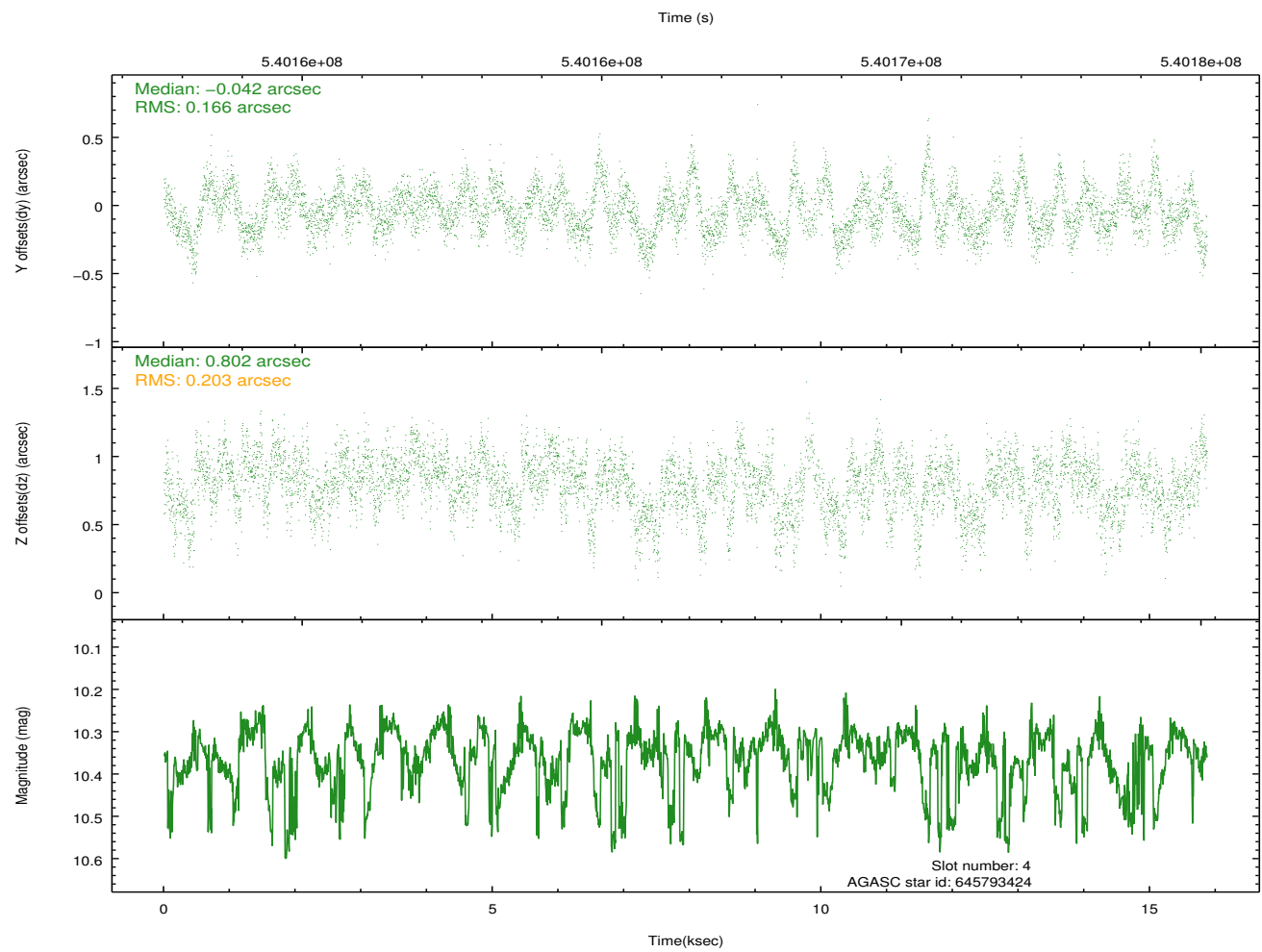
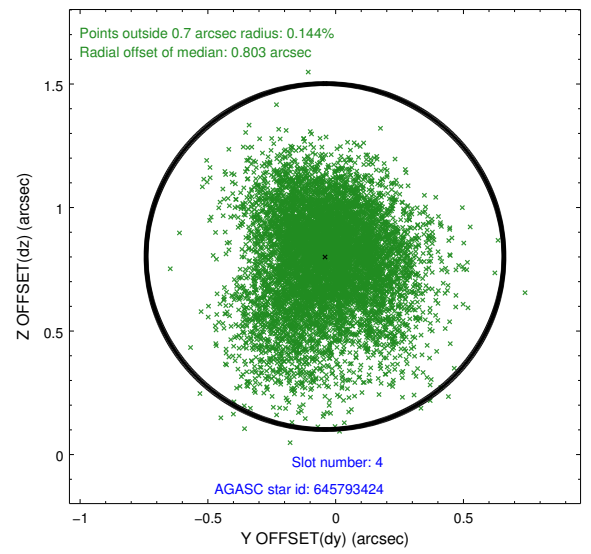
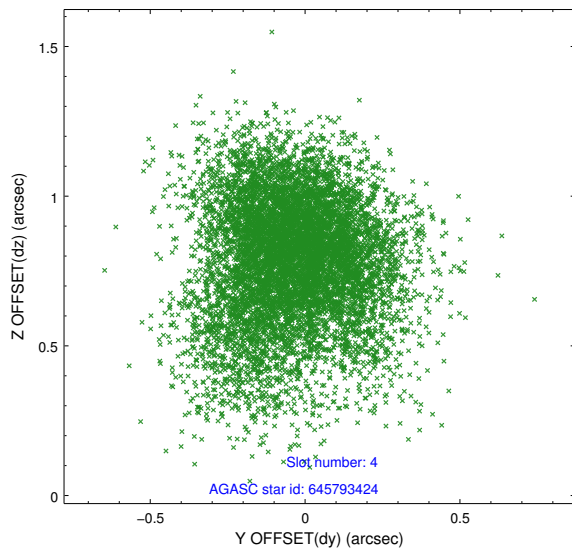
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## 2.4 Star Slots

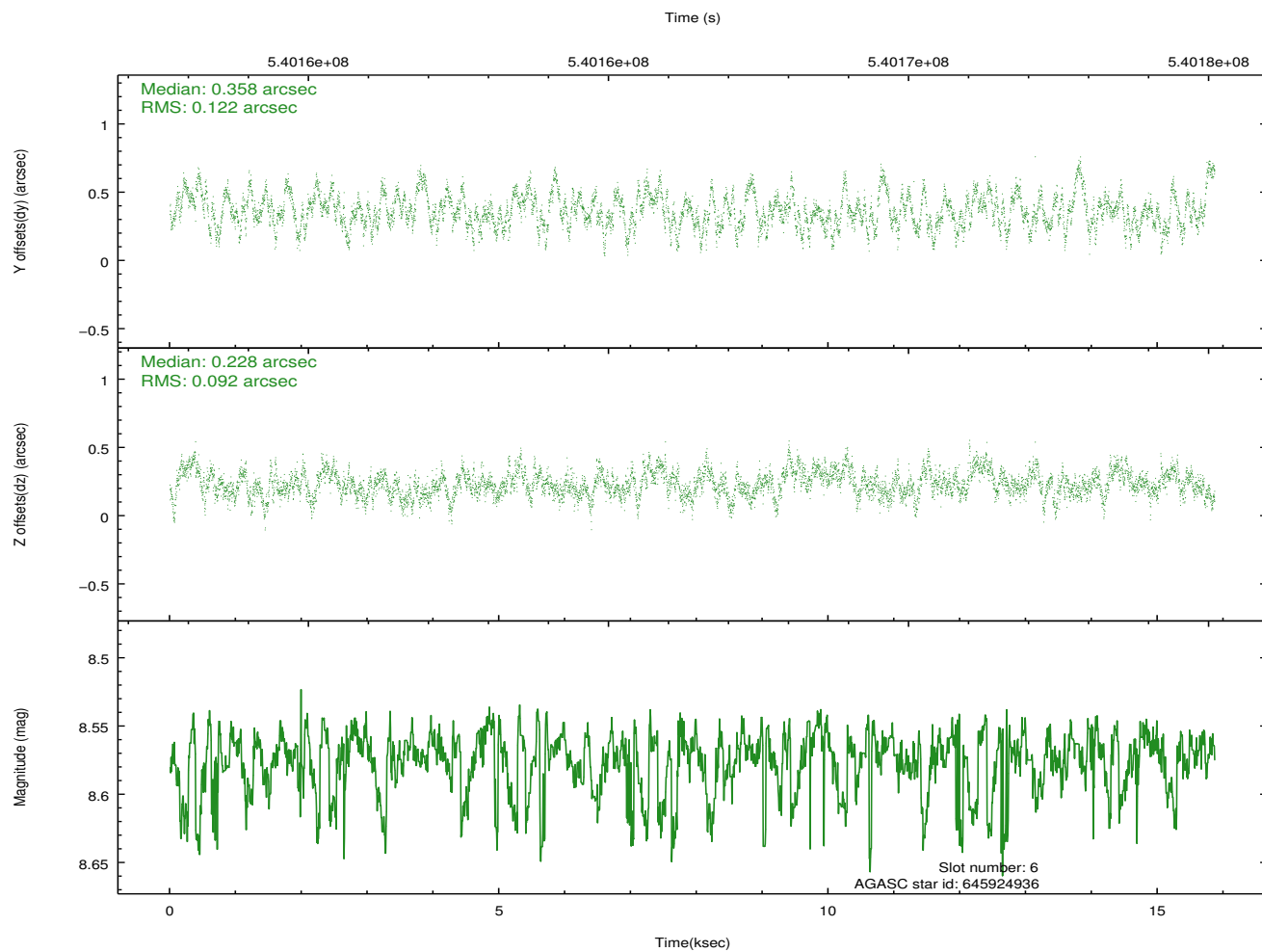
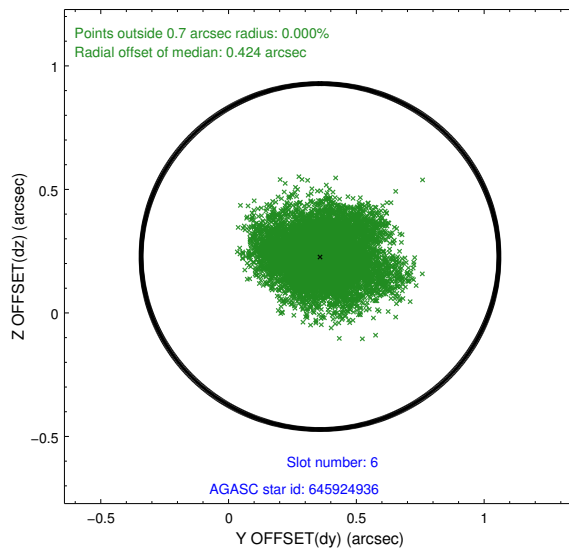
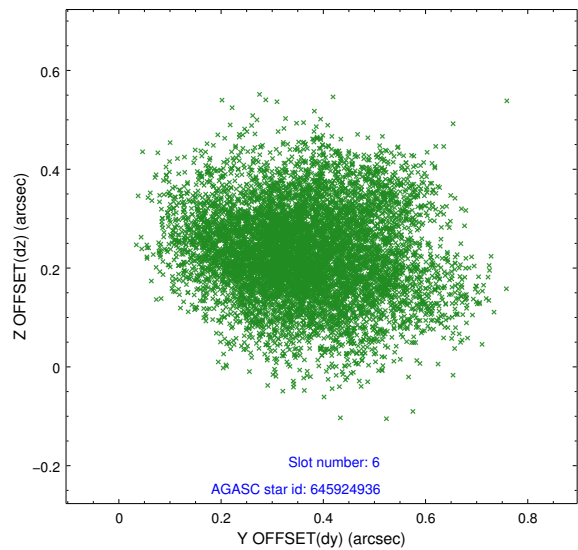
### 2.4.1 Slot 3



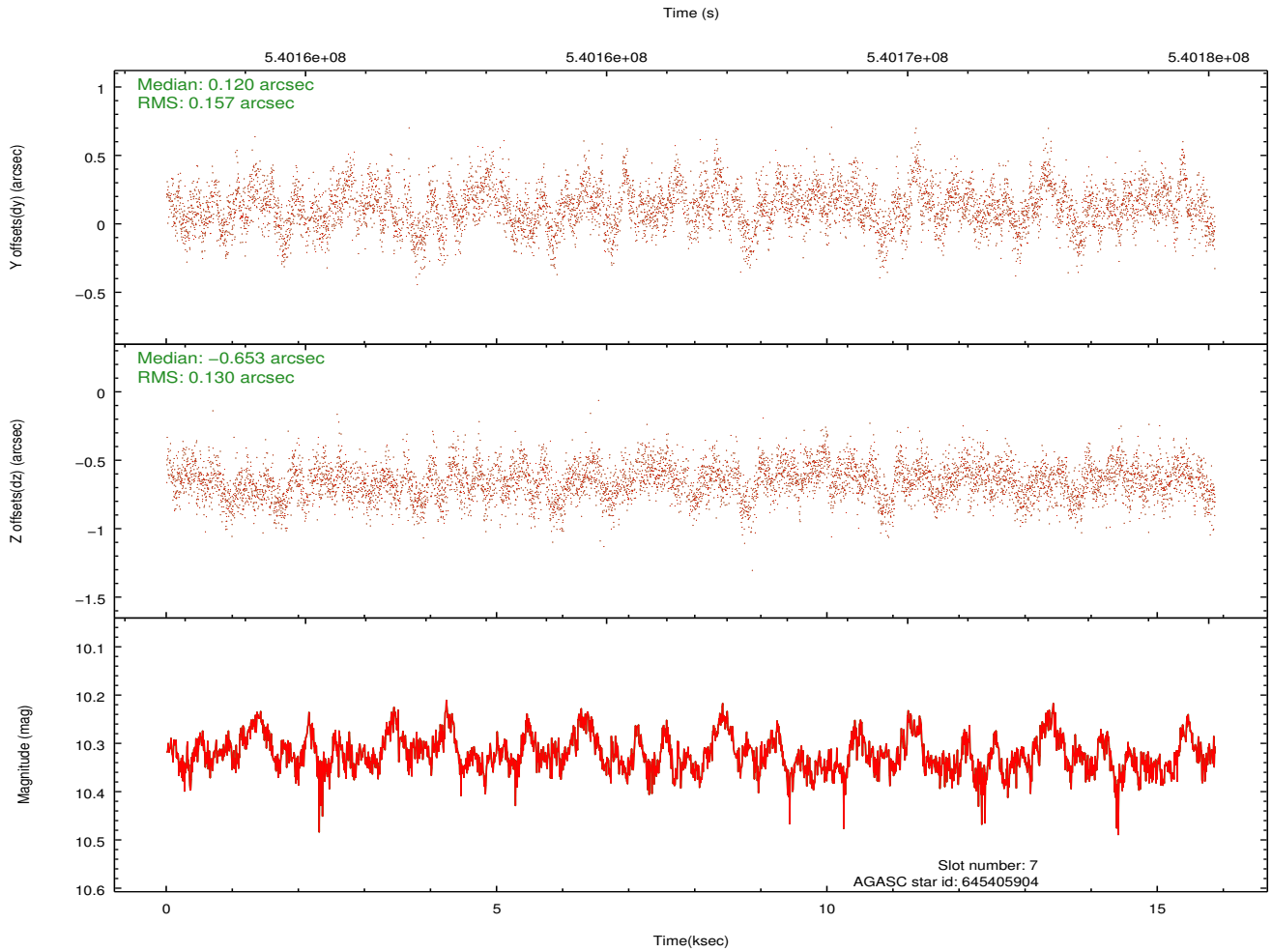
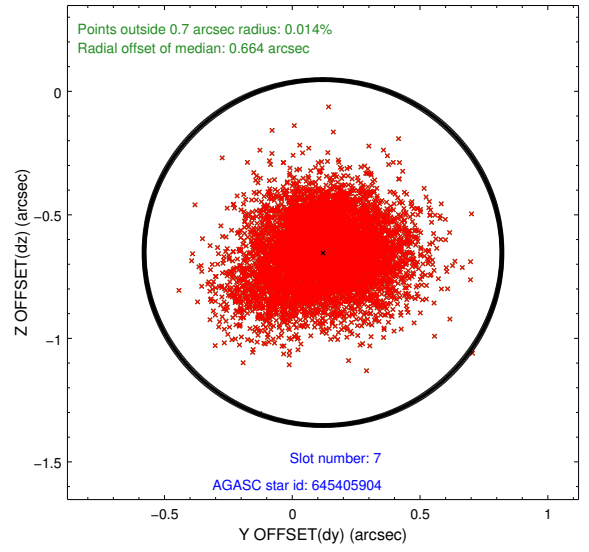
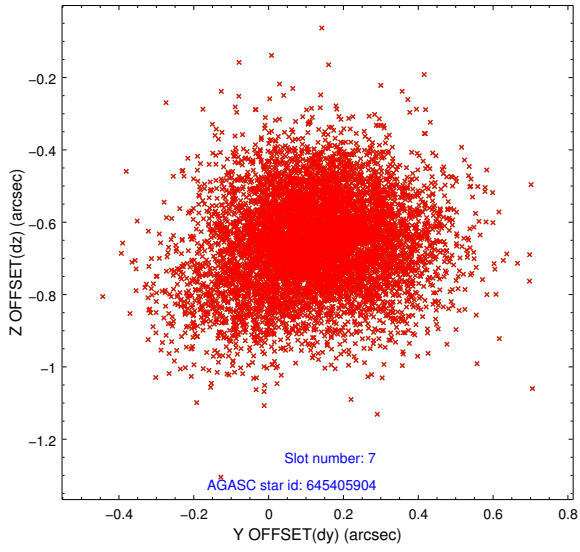
## 2.4.2 Slot 4



### 2.4.3 Slot 6

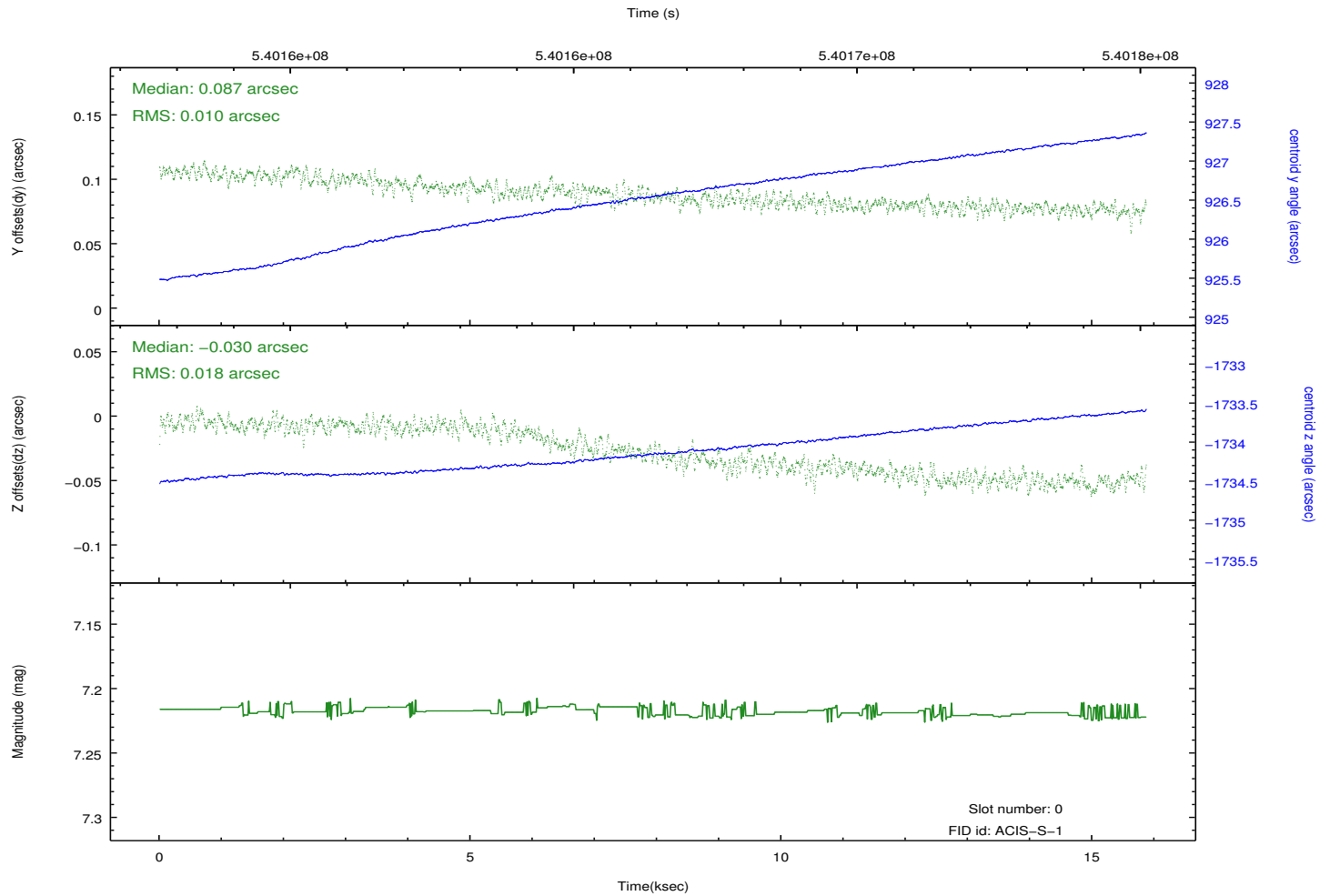
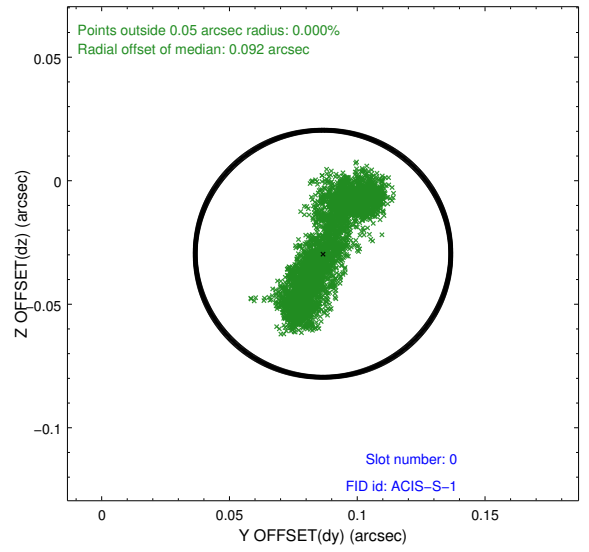
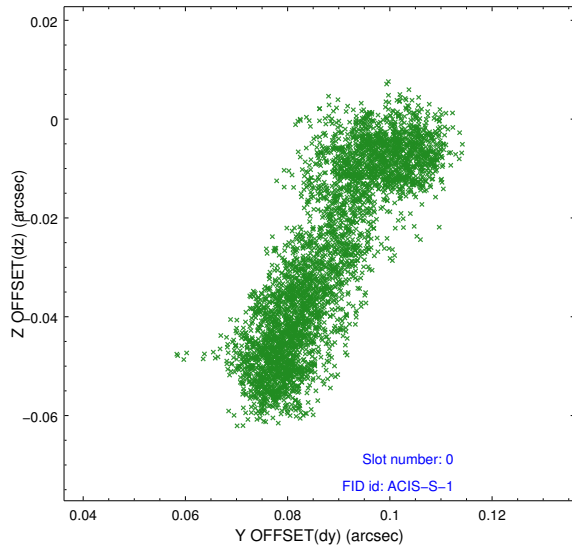


### 2.4.4 Slot 7

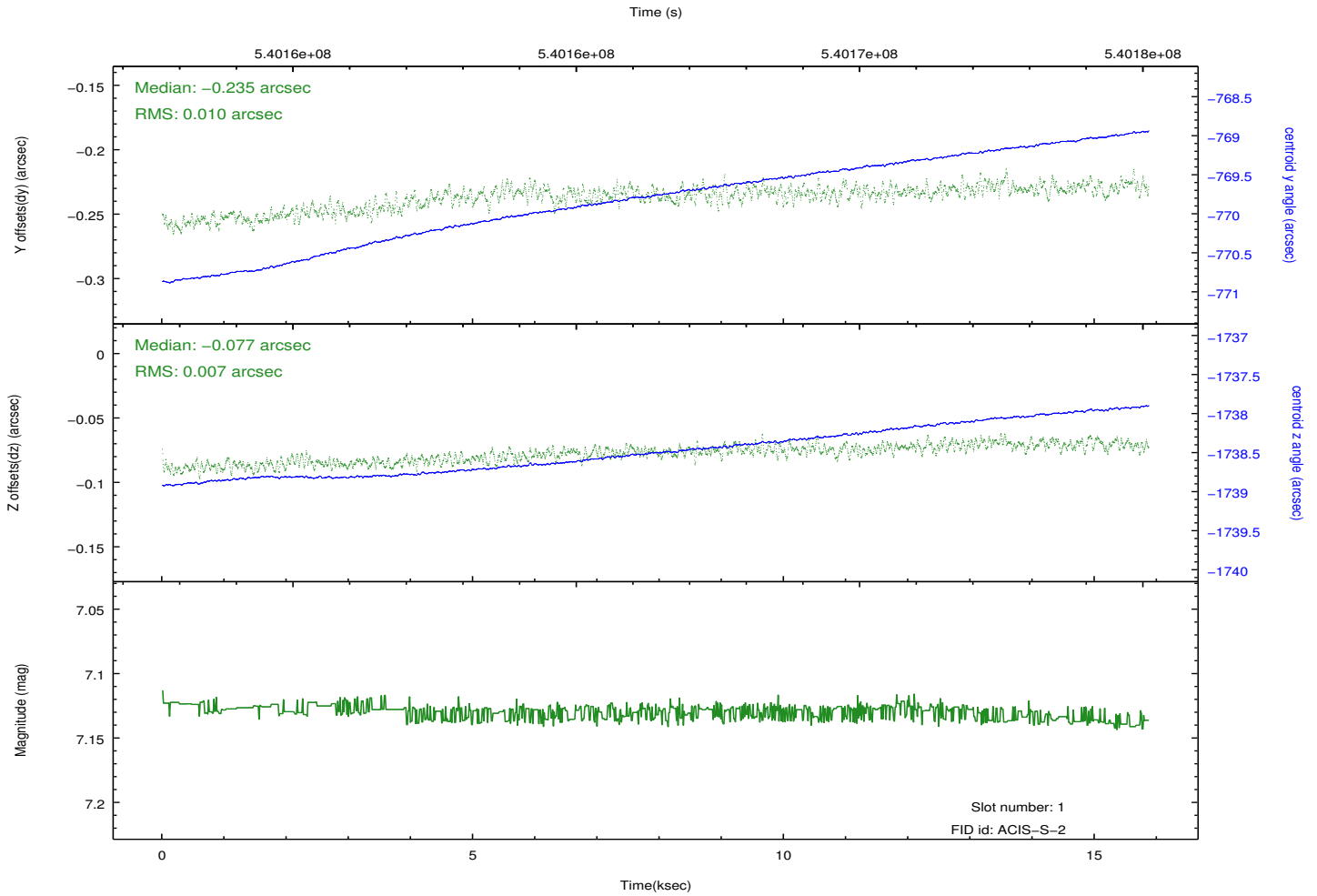
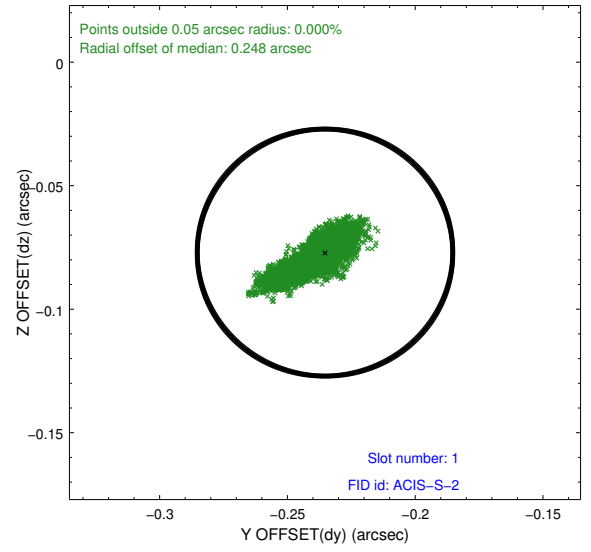
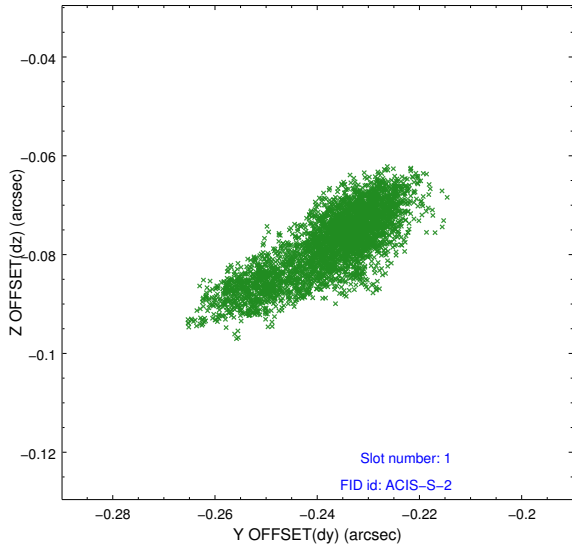


## 2.5 FID Slots

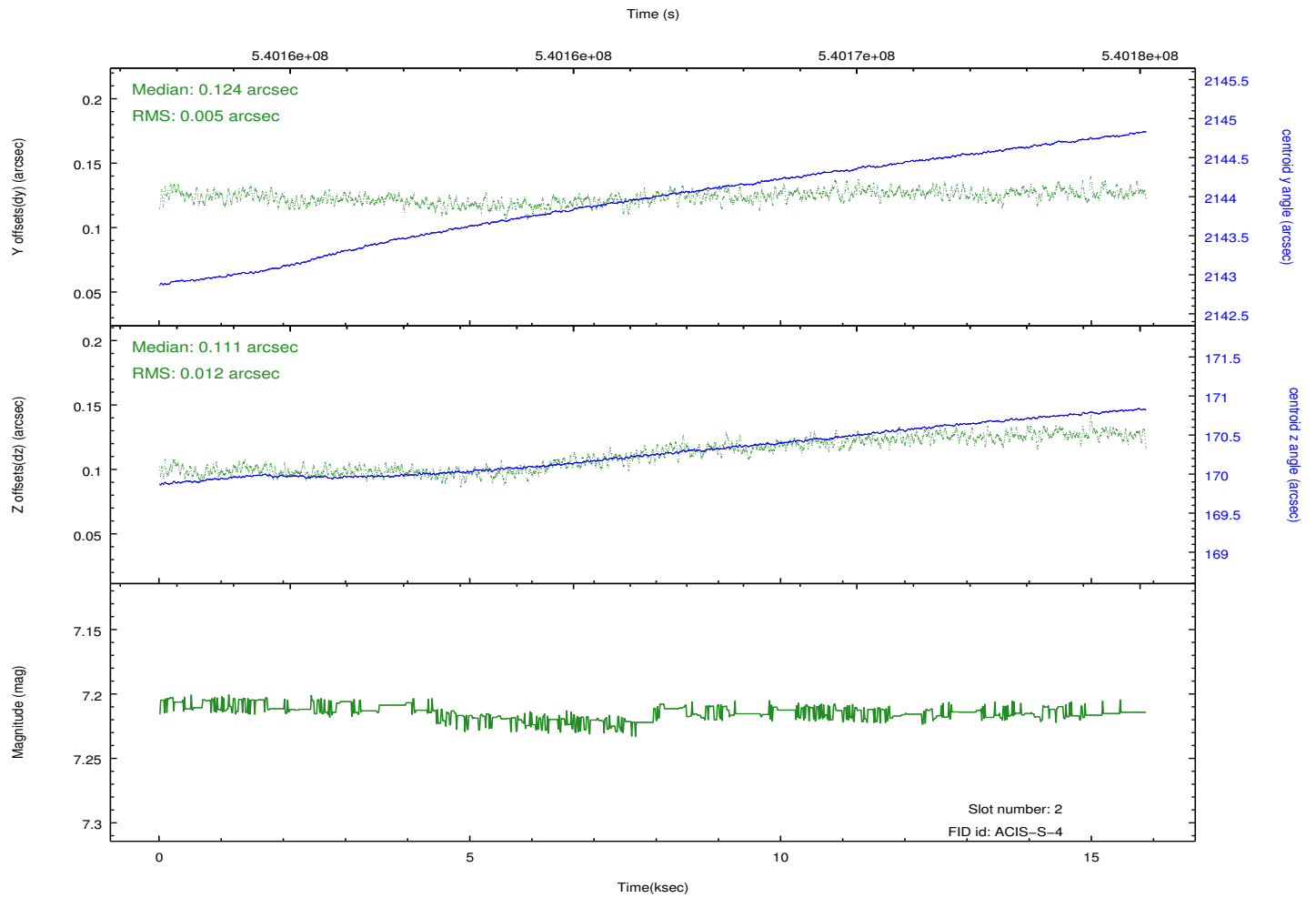
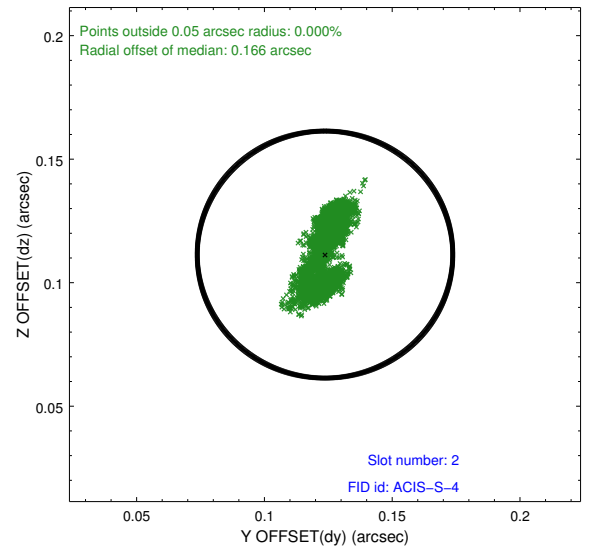
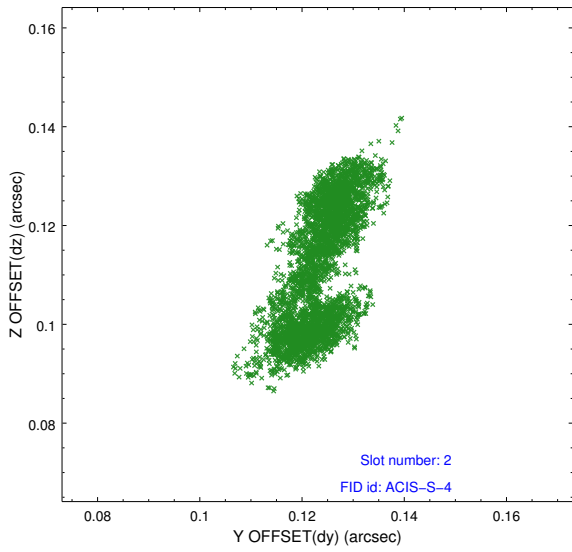
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.025107417822

## A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.